

water transfer path, as a function of pressure across that path. Once the water transfer path characteristics are established, the flow is controlled by pressure as set forth in Darcy's law.

Paragraph 6 of the Declaration makes it clear that it was known, prior to September 2003, that the water flowing from the anode transport plates need merely be measured by a then-known flow meter.

Paragraph 7 of the Declaration describes two ways to determine the amount of water flowing as vapor from the cathode reactant gas flow fields. One way is simply to condense it, as was known prior to September 2003, and to measure it with a flow meter as was also known. The other way, which is also useful in adjusting the amount of that vapor, is to use the simple ratio of the vapor pressure of water at a temperature, which vapor pressure can be controlled by adjusting the temperature in a manner that was known before September 2003. All the elements necessary to adjust and balance the various flows were known to those skilled in the fuel cell arts prior to September 2003.

It should be pointed out that the undersigned has had difficulty finding an edition of the Handbook of Chemistry and Physics which was clearly prior to September 2003. However, there should be no question that the things shown in the cited portions have been known for decades.

Particularly in view of the simple summary set forth in paragraph 8 of the Declaration, being based on all of the elements thereof having been known prior to September 2003, reconsideration and withdrawal of the -112-1 rejection of claims 18 and 19 is respectfully requested.

3, 4. Claims 1, 3, 16-18 and 20 are rejected as obvious over Koch et al (Koch) in view of Cisar et al (Cisar).

The entire disclosure relates only to fuel cells in which each and every fuel cell in a stack is separated from fuel cells adjacent thereto by **WATER IMPERVIOUS SOLID SEPARATOR PLATES OR COOLER PLATES**. This is set forth in lines 11-13 of claim 1 and in lines 9-11 of claim 20, the only independent claims currently under consideration. There is no issue about fuel cell power plants of the type recited in lines 3-13 of claim 1 being known. What is new and claimed is the step or the means for transferring water internally of the stack from one or more cathode water transport plates to one or more anode water transport plates, when cathodes of one cell are separated from anodes of an adjacent cell by **WATER IMPERVIOUS SOLID SEPARATOR PLATES OR COOLER PLATES**. To meet this language, the

rejection relies on Cisar, which does indeed state that water may pass through the gas barrier (paragraphs 0016 and 0021). However, that is a passage of water from the cathode of one fuel cell to the anode of an adjacent fuel cell. Cisar does not have solid separator plates. Therefore, Cisar is wholly irrelevant. Cisar cannot possibly teach moving the water through that barrier if indeed there has to be a water impervious plate where that barrier is.

In the present specification at page 3, lines 20-27, it is recognized that an operation such as Cisar may allow water generated at one cathode to flow to an adjacent anode of a different cell, but points out that "this mechanism cannot occur in cells which are adjacent to solid coolers or separated by solid separator plates...." Cisar cannot possibly be relevant to moving water from a cathode to an anode if the only way it can be done is from a cathode of one cell to the anode of another cell, because claims 1 and 20 both require that the cells be separated by SOLID, WATER IMPERVIOUS PLATES. Cisar does not teach how to modify Koch to provide it with solid, water impervious separator plates between cells and also to move water from cathodes to anodes internally of the stack. This cannot be suggested by Cisar.

A -132 Declaration of Robert M. Darling dated December 14, 2006 previously filed with the response dated December 18, 2006 describes in paragraphs 6-9 that neither Koch nor Cisar have solid separator plates and, in paragraph 10, that the references together do not suggest solid separator plates while moving water from cathodes to anodes only within the stack. This is not opinion evidence. This is describing what is patently clear in the references themselves and may be considered only a guide to what one would find if one carefully scrutinized the references. The assertions of this Declaration have not at all been refuted; therefore, they should be treated as fact.

The last paragraph of MPEP 2144.08 II cites *In Re Piasecki*, which at 223 USPQ 788 quotes *In Re Rhinehart*, 531 F.2d 1048, 1052, 189 USPQ 145, 147 (CCPA 1978):

"When...evidence is submitted in rebuttal, the decision maker must start over....An earlier decision should not...be considered as set in concrete, and applicant's rebuttal evidence then be evaluated only on its knockdown ability....Facts established by rebuttal evidence must be evaluated along with the facts on which the earlier conclusion was reached, not against the conclusion itself."

In Re Oelrich and Divigard, 198 USPQ 210, 215 describes the process thusly:

"While...showings of fact are much preferred to statements of opinion,...the nature of the

matter sought to be established, as well as the strength of the opposing evidence, must be taken into consideration in addressing the probative value of expert opinion."

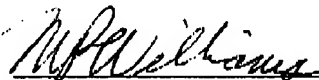
The -132 assertions were of facts in the references.

There was no response to applicants' arguments. It is an absolute fact that neither reference has solid separator plates, and neither reference teaches how to move water from a cathode to an anode except between adjacent cells; the claims call for separating the cells with water impervious solid plates.

Therefore, reconsideration and allowance of claims 1, 3, 16-18 and 20 over Koch and Cisar is respectfully requested.

To save the Examiner considerable time when this case is taken up, a short phone call is recommended should any issue herein still be unresolved. A few minutes on the phone could clarify a point, or result in a supplemental response which would further limit or dispose of issues. A five minute phone call can save the Examiner a lot of work. Such a phone call would be deeply appreciated.

Respectfully submitted,



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